



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,435	04/20/2004	Tadao Endo	03500.018084	2723

5514 7590 04/05/2006

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

KIKNADZE, IRAKLI

ART UNIT	PAPER NUMBER
----------	--------------

2882

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,435

Applicant(s)

ENDO, TADAO

Examiner

Irakli Kiknadze

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/8/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☒ Claim(s) 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In response to the Office action dated September 9, 2006 the Amendment has been received on December 8, 2005.

Claims 1-3, 5 and 7-9 have been amended.

Claims 10-13 have been newly added.

Claims 1-13 are currently pending in this application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. Claim 13 claim(s) a computer program. Computer program are not physical "things". They are neither computer components nor statutory process, as they are not "act" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the

computer program and the rest of the computer which permit the computer program's functionally to be realized, and is thus statutory. See MPEP 2106. (IV) (B) (1) (a).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Jabri et al.(US Patent Application Publication 2003/0169848 A1).

With respect to claim 13, Jabri teaches a computer program ([0007]) for operating a computer to execute display of a movie image on a display apparatus based on a plurality of images derived successively by subjecting to subtraction processing ([0023], line 8) a first image derived by a first energy radiation transmitted through an object and a second image derived by a second energy radiation transmitted through the same object, among a plurality of images of successive frames detected by radiation detecting means for detecting as an electric signal the radiation transmitted through the object ([0020-, lines 1-5;[0026]; [0027]; claim 25).

7. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Zhao et al.(US Patent 6,683,934 B1).

With respect to claim 13, Zhao teaches a computer program for operating a computer to execute display of a movie image on a display apparatus based on a plurality of images derived successively by subjecting to subtraction processing (column 7, lines 28-43) a first image derived by a first energy radiation transmitted through an object and a second image derived by a second energy radiation transmitted through the same object (column 9, lines 27-32), among a plurality of images of successive frames detected by radiation detecting means for detecting as an electric signal the radiation transmitted through the object (column 3, lines 10-20; claim 33 and 52).

Allowable Subject Matter

8. Claims 1-12 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 1-7, prior art fails to teach or make obvious a radiation imaging apparatus comprising: an image display control means controlling a display device to continuously display a plurality of processed images as a dynamic image, each of the processed images being obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, wherein the even image is derived in succession to the odd image as claimed including

all of the limitations of the base claim 8 and any intervening claims.

With respect to claim 8, prior art fails to teach or make obvious a radiation imaging system comprising: an image display control means controlling a display device to continuously display a plurality of processed images as a dynamic image, each of the processed image images being obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, wherein the even image is derived in succession to the odd image as claimed including all of the limitations of the claim 8.

With respect to claim 9, prior art fails to teach or make obvious a radiation imaging method comprising the steps of: controlling a display device to continuously display a processed image as a dynamic image, each of the processed images being obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, wherein the even image is derived in succession to the odd image as claimed including all of the limitations of the claim 9.

With respect to claim 10, prior art fails to teach or make obvious a radiation imaging apparatus comprising: an image display control means controlling a display device to continuously display a plurality of processed images as a dynamic image, each of the processed images being obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, wherein the even image is derived in succession to the odd image as claimed including all of the limitations of the claim 10.

With respect to claims 11 and 12, prior art fails to teach or make obvious a

radiation imaging system comprising: an image display control means controlling a display device to continuously display a plurality of processed images being obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, wherein the even image is derived in succession to the odd image as claimed including all of the limitations of the claim 11 and any intervening claims.

Response to Arguments

10. Applicant's arguments, see pages 12-16, filed December 8, 2005, with respect to claims 1-12 have been fully considered and are persuasive. The rejection of claims 1-12 has been withdrawn.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 3, 2006
Irakli Kiknadze

IK


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER